

THE KEYSTONE OF LOGOLOGY

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All English words and names -- all, without a single exception -- are logologically interesting

This is the most fundamental axiom underlying logology as we know it. Although it is intuitively self-evident, proving it conclusively has been just as difficult as proving the four-color conjecture in cartographic mathematics. At long last, a complete proof of the four-color conjecture has been obtained, by two mathematicians at the University of Illinois. Kenneth Appel and Wolfgang Haken spent four years devising this proof with the aid of an electronic computer, their analysis requiring more than ten billion logical steps.

In view of this achievement, it behooves us to attempt a similarly conclusive proof of the keystone of logology.

The most direct way of establishing the truth of our axiom would be to examine carefully each English word and name, demonstrating its logological interest. This method is entirely impractical, for two reasons. First, there are millions of words and names, so that the amount of work required would consume the entire lifetimes of numerous individuals. Second, there are so many disputes about the boundary between words and nonwords, both latent and patent, that no general consensus could ever be reached concerning exactly what constitutes the body of words and names comprising the English language. Consequently, we must cast about for some other kind of proof.

A superficially simple and attractive proof has been kicking around for a long time. The proof runs something like this. Let us divide all English words and names into two groups: the interesting ones and the uninteresting ones, sorting the uninteresting ones into alphabetical order. The alphabetically last uninteresting term, by sheer virtue of its position, is an interesting term. Therefore, we must transfer it to the interesting group, converting the previously next-to-last term in the uninteresting group into an interesting term because of its new position as the alphabetically last uninteresting term and qualifying it for transfer to the interesting group. The process is a repetitive one, leading ultimately to the transfer of all uninteresting terms to the interesting group.

There is an obvious fallacy in this proof. As soon as we have transferred the original alphabetically last word in the uninteresting group to the interesting group, it has lost the characteristic that made

it interesting in the first place, compelling us to return it to the uninteresting group, and closing the door on any possibility of further transfers from the uninteresting to the interesting group.

The first serious approach to solving our problem was unveiled in the February, 1969 issue of *Word Ways* by Howard W. Bergerson, its then editor. In an article entitled "Sea-Changed Words", published under the compound pseudonym of Alice Gorki and Dmitri Miller, Bergerson presented a method that he felt was reasonably guaranteed to relate any given word or name to some other word or name, thereby making it interesting. Unfortunately, the method proposed by him is rather unlikely to have worked in the case of long words, was too mathematical really to be understood by most logologists, and established such obscure, roundabout connections between words as to destroy completely the aesthetic or emotional appeal that is an essential ingredient of logological interest. This made the method a self-defeating one.

Accordingly, the problem posed has remained unsolved. A new attempt to produce a satisfactory solution follows.

If a representative sampling of English words could be selected entirely at random, and if it could be demonstrated that each of the words chosen was logologically interesting, it would be possible to make an inductive leap to the generality that all English words were similarly interesting. To obtain a representative sampling for experimental purposes, let us cull words from the 1974 edition of the Merriam-Webster Dictionary, popularly known as the M-W pocket dictionary. To guarantee a random selection, let us pick the second of the two guide words at the top of each fortieth page, beginning with page 40 and ending with page 800. Since the dictionary itself runs from page 19 to page 817, this will produce a list of twenty words spread evenly over the text of the dictionary. The second guide word at the top of each page is usually but not always the last entry on the page (there are exceptions of various sorts, but those exceptions do not affect our problem in any way).

Why the second guide word rather than the first one? The choice is a purely arbitrary one, but no more arbitrary than would be the choice of the first guide word.

Why each fortieth page rather than, let us say, each tenth or each twentieth page? In order to keep the project within manageable limits. If, on the average, only 25% or 50% of all words were logologically interesting, it is extremely improbable mathematically that twenty randomly selected words would each prove to be logologically interesting. On the other hand, if 99% (but not 100%) of all words are interesting, the selection of eighty words at random would not be much more likely to detect the existence of the uninteresting 1% than would the selection of only twenty words.

To test the fundamental axiom of logology, I have selected the twenty words as described above, examining each one with considerable

care. Lo and behold! Each of these twenty specimens is found to have special logological interest attaching to it. The entire list of words is presented below, with explanations showing what it is that makes each word quite remarkable.

Some readers may feel that the generalization from twenty words to considerably more than one million words and names is mathematically unjustified. However, the complete success of this experiment shifts the burden of proof from the believers to the skeptics. Putting it another way, anyone who disputes the principle that all words and names are logologically interesting is now faced with the problem of finding some examples totally devoid of interest. Obviously, the mere fact that the searcher doesn't recognize the logological interest inherent in some particular word or name does not prove that no such interest exists. A more perceptive or more diligent investigator might well discover the aura of interest surrounding the term.

Since the validity of the proof presented here is contingent upon the inability of anyone, anywhere to find uninteresting terms, I announce an unusual offer. I shall award a prize of twenty-five dollars to the first reader of Word Ways who succeeds in finding an English word or name in which I can perceive no logological interest.

This offer carries the possibility with it that I might be flooded with candidate words, making the task of considering all of them properly one requiring the expenditure of a prohibitive amount of time. Therefore, I shall ask the genial editor of Word Ways to screen the candidates that come into him -- if there is a very large number of them -- to select those which seem to him to be the most intractable, and to forward to me only the twenty or twenty-five toughest specimens. (As an aid to the editor, arrange your lists in decreasing order of toughness, if you feel that differences exist in this regard.) I shall then prepare a report showing why each of these terms is actually of phenomenal interest -- or, if this proves to be impossible because a word is devoid of interest, award the prize accordingly.

Fair enough?

- 1 AMPLIFY - To AMPLIFY a FAMILY is to enlarge it by using a technique known as transaddition.
- 2 BETWEEN - Encased between the first and last letters of this word is ETWEE, a small ornamental case. This exemplifies the terminal elision.
- 3 CASTIGATOR - A substitute-letter transposal of CATEGORIST, as well as of the hypothesized ancient Greek name CRITAGORAS which blends, as it were, the Platonic names CRITIAS (or CRITTO) and PROTAGORAS.
- 4 CONJUGATE - A charade divides this term into three consecutive, common, three-letter words: CON + JUG + ATE.
- 5 DESK - the central motif in the following set of sequential word squares, each of which also includes a transposal of DESK: either KEDS (sheep ticks) or SKED (schedule):

DESK	ODES	KEDS	SKED
EPEE	DESK	ELEA	KALE
SEND	ESNE	DESK	ELMS
KEDS	SKED	SAKE	DESK

Ancient ELEA, in southern Italy, was the home of the Eleatic philosophers Parmenides and Zeno.

- 6 ENIGMA - A kind of puzzle in verse, in which a selected subject is alluded to by veiled references.
- 7 FOLIATED - A reversal of the dictionary combination DETAIL OF. In defining the noun DETAIL, Webster's Third Edition uses the illustrative phrase "reproduce a DETAIL OF a painting".
- 8 HAIL MARY - A mutation of the letters in the undoubtedly real name IRMA L. HAY.
- 9 INDEMNITY - A transposition of MID-NINETY, the singular form of MID-NINETIES (said of the temperature, someone's age, etc.).
- 10 LAYOFF - The word remaining when we remove or "lay off" the first and last letters of the longer word PLAY-OFFS.
- 11 METRICAL - A transcurtailment of the monkish term CARME-LITE yields the word METRICAL.
- 12 NOVAS - A "chemical" word, analyzable into N + O + V + As (nitrogen, oxygen, vanadium, arsenic). Alternatively, the first two letters, No, symbolize nobelium.
- 13 PETITION - A word exhibiting perfect mathematical balance. If we assign normal values to the letters of the alphabet (A = 1, B = 2, ... Z = 26), the sum of the values of the letters comprising the word PETITION is 108. If we assign "reverse" values to the letters of the alphabet (Z = 1, Y = 2, ... A = 26), the sum of the eight letter values in PETITION is also 108.
- 14 PSYCHEDELIC - A relatively long word the letter at the precise center of which may be changed to produce a variant spelling, PSYCHODELIC, included in three of the leading dictionaries (The World Book Dictionary, The Random House Dictionary of the English Language, Webster's New World Dictionary of the American Language), but not in any Merriam-Webster dictionary.
- 15 REVOLVED - Another example of the shell-and-kernel game: remove the shell (the two outermost letters), and you are left with the kernel -- EVOLVE, a new word.
- 16 SIBILANT - A substitute-letter transposition of the word INSTABLE, and of the word ALBINISM.
- 17 SUBCONTINENT - The noun base for SUBCONTINENTAL, the longest known English word featuring the five vowels in reverse-alphabetical order.
- 18 TOT - A precious palindrome, spelled the same backward as it is forward, convertible into another palindrome, AVA, by shifting each letter forward seven spaces along the alphabet.
- 19 VACCINATE - A substitute-letter transposal both of the word INCAVATED and of the word VACANCIES.

- 20 WINCH - Shift each letter of this word forward six spaces along the alphabet and you transform it into the surname COTIN. Charles Cotin, 1604-1682, was a French abbé and poetaster, ridiculed by Molière.

A NEW PATTERN WORD LIST

Ever since Jack Levine's three limited-edition books of words arranged by their patterns (for example, EXCESS with BAMBOO) went out of print, logophiles have had no opportunity to acquire this useful research tool. In 1976, Eldridge and Thelma Goddard published Cryptodyct, a booklet which arranges about 75,000 main-entry dictionary words by pattern (but includes no derived forms, such as plurals, verb past tenses or gerunds unless separately listed in the dictionary). To encode the patterns, the authors use a method recently endorsed by David Shulman in Word Ways: convert the letters of a word to a sequence of numbers (AGREE to 12344, ELIMINATE to 123435671) and, to save space, delete those parts of the sequence consisting of normal count-ups (AGREE to 44, ELIMINATE to 4371). Within each group of words having a common pattern, words are arranged by vowel position and then alphabetically: first all words starting with a vowel, then words with the first vowel in second position, etc.

The Goddards suggest that most users of the booklet will find it an aid in cryptogram solving -- by identifying words with unusual patterns, one can quickly crack many monoalphabetic substitution ciphers. However, it should be noted that clever cryptogram constructors have for many years selected messages in which each encoded word corresponds in pattern to many possible words.

At \$4.20, this book is a real bargain. It can be ordered from P.O. Box 441, Marion, Iowa 52302.